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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,374	01/22/2001	James Thompson	5285-06300	2543

7590

10/27/2004

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EXAMINER

LESNIEWSKI, VICTOR D

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 10/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/767,374	Applicant(s) THOMPSON ET AL.	
	Examiner Victor Lesniewski	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-145 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-145 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed 8/16/2004 has been placed of record in the file.
2. Claims 1, 8-10, 12, 30, 32-35, 37-39, 41, 46, 48, 53, 55, 57, 62, 69-71, 73, and 75 have been amended.
3. The objection to the numbering in the claims is withdrawn in view of the amendment.
4. Claims 84-145 have been added.
5. The applicant has acknowledged the double patenting rejection and is reminded that a terminal disclaimer must be filed in order to overcome it.
6. The applicant's arguments with respect to claims 1-83 have been fully considered but they are not persuasive. A detailed discussion is set forth below.

Response to Arguments

7. Claims have been amended to explicitly show that a first access point determines the wireless service provider and to explicitly show the existence of a plurality of access points. However, none of the amended claims 1, 8-10, 12, 30, 32-35, 37-39, 41, 46, 48, 53, 55, 57, 62, 69-71, 73, and 75 show a patentable distinction over the prior art. Thus claims 1-10, 12-39, 41-71, and 73-83 remain rejected under 35 U.S.C. 102(e) as being anticipated by Feder et al. (U.S. Patent Number 6,512,754), hereinafter referred to as Feder, and claims 11, 40, and 72 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Feder in view of Diepstraten et al. (U.S. Patent Number 5,991,287), hereinafter referred to as Diepstraten.
8. In the remarks, the applicant has argued:

Art Unit: 2155

- <Argument 1>

Feder does not disclose each and every element of the claimed invention, particularly with respect to the independent claims, as amended, where the applicant claims “the first access point determining the wireless service provider...”.

- <Argument 2>

Feder does not disclose an access point that includes a plurality of protocol stacks.

- <Argument 3>

There is no motivation to combine Feder and Diepstraten.

9. In response to argument 1, Feder does disclose all limitations set forth in the independent claims as amended. The line citations contained in the previous office action (column 10, lines 22-53) contain access point functionality in respect to figure 4. Figure 4 shows the configuration where access points and a wireless hub are co-located at a base station. This configuration contains the same limitations as the independent claims where the “access point” of the claimed invention can be referenced to the above configuration and not just a single access point as defined by Feder.

10. For clarification, the applicant is directed to column 7, lines 8-50. Here, Feder states some details of the wireless hub. “The wireless hub includes a proxy registration agent (e.g., software running on a processor in the wireless hub) acting as a proxy for the end user registration agent.” It is clear that functionality to determine the registration is present in Feder’s configuration of the access points and wireless hub, which is akin the applicant’s “access point.” Furthermore, Feder goes on to state how the registration is made which includes the operation of the “inter-working function modules” which are “actually software modules that run on

Art Unit: 2155

processors in both the MSC and the wireless hubs,” thus further demonstrating software that runs the determining step for the registration present on the wireless hub. Thereby, Feder discloses all the functionality as claimed in the independent claims, as amended.

11. In response to argument 2, Feder’s system does include a plurality of protocol stacks. It is clear that each access point, as defined in Feder, includes a protocol stack. Following the same line of thinking as above, the base station as defined in Feder contains the wireless hub which connects to a plurality of access points. Thus the wireless hub would maintain a plurality of protocol stacks, one for each access point. Here, again, the configuration of the wireless hub and access points in Feder contains the same functionality as the applicant’s definition of an “access point.” Thereby, Feder discloses all the limitations of these argued dependent claims, as amended.

12. In response to argument 3, it is recognized that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, motivation is found in the knowledge generally available to one of ordinary skill in the art. At the time of the applicant’s invention, the use of the IEEE 802.11 wireless protocol stack was well known. This is shown by Diepstraten’s use of the protocol stack in a wireless computer network of his own containing a plurality of access points. Furthermore, previous use of this protocol stack is well documented in the background of the applicant’s application. In addition, IEEE published the standard in 1997. It is maintained

Art Unit: 2155

that since the 802.11 protocol was well known in the art and that Feder and Diepstraten represent analogous art (i.e. wireless communications networks with access point functionality), it would have been obvious to combine Feder and Diepstraten.

Claim Rejections - 35 USC § 101

13. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

14. Claims 131-142 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 131-142 recite descriptive material that may or may not be an embodiment of a computer system or embodied on a computer readable medium so as to be executable. Here, a carrier medium does not suffice as computer readable or a computer program product and does not constitute eligible subject matter for patentability. See MPEP 2106.IV.B.1(a).

15. Claims 131-142 contain limitations similar to other claims rejected below. Thus, in the event that these claims were made statutory, they would not necessarily be patentably distinct.

Claim Rejections - 35 USC § 102

16. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

17. Claims 84-91, 99, 101-105, 113-116, and 123 are rejected under 35 U.S.C. 102(e) as being anticipated by Feder. Some claims will be discussed together. Those claims which are

Art Unit: 2155

essentially the same except that they set forth the claimed invention as a system or similar method are rejected under the same rationale applied to the described claim.

18. Feder has disclosed:

- <Claim 84>

The method of claim 1, wherein the network system includes a memory medium which stores a data structure comprising a list of wireless service provider identification information, a corresponding list of the plurality of possible wireless service providers, and associated destinations for providing data to the respective plurality of possible wireless service providers; and wherein said determining the wireless service provider for the portable computing device includes accessing the memory medium and using the received identification information to determine the wireless service provider and an associated destination for providing data to the wireless service provider determined in said determining (column 7, lines 21-50).

- <Claims 85, 99, and 123>

The method of claim 84, wherein the memory medium is comprised in one or more of the plurality of access points (column 7, lines 8-50).

- <Claims 86 and 115>

The method of claim 84, wherein the data structure further comprises associated methods for providing data to the respective plurality of possible wireless service providers; and wherein said determining the wireless service provider for the portable computing device includes accessing the memory medium and using the received identification information

to determine the wireless service provider and an associated method for providing data to the destination (figure 11).

- <Claims 87 and 116>

The method of claim 86, wherein the memory medium is comprised in one or more of the plurality of access points (column 7, lines 8-50).

- <Claims 88, 102, and 113>

The method of claim 1, further comprising: the first access point concurrently using a plurality of radio frequency (RF) channels for communicating with one or more portable computing devices (figure 6).

- <Claims 89, 103, and 114>

The method of claim 88, wherein a first RF channel of the plurality of RF channels and a second RF of the plurality of RF channels are non-overlapping RF channels (figure 6).

- <Claims 90 and 104>

The method of claim 3, wherein one or more of the plurality of possible SIDs each indicate one or more VLANs (column 40, line 62 through column 41, line 2).

- <Claims 91 and 105>

The method of claim 90, further comprising: determining at least one VLAN indicated by the recognized SID; wherein said providing includes using the at least one VLAN to communicate the received data from the portable computing device to the determined wireless service provider (column 15, lines 42-52; column 17, lines 2-26; and column 40, line 62 through column 41, line 2).

Art Unit: 2155

- <Claim 101>

The network system of claim 30, wherein the network is operable to enforce a predefined quality of service (QoS) metric to a virtual port within the network (column 7, lines 1-7). Since all the limitations of the invention as set forth in claims 84-91, 99, 101-105, 113-116, and 123 were disclosed by Feder, claims 84-91, 99, 101-105, 113-116, and 123 are rejected.

Claim Rejections - 35 USC § 103

19. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

20. Claims 92-98, 106-112, 117-122, 124-130, and 143-145 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feder in view of Diepstraten. The rationale for the combination of Feder and Diepstraten can be found in the previous office action as well as above in the response to argument 3.

21. The combination of Feder and Diepstraten discloses:

- <Claims 92, 106, and 117>

The method of claim 3, wherein the plurality of SIDs comprises a plurality of IEEE 802.11 Service Set IDs (SSIDs) (Feder, column 15, lines 42-52; Feder, column 17, lines 3-26; and Diepstraten).

Here the first two column citations refer to network or system identifications as cited in the previous action for claims with similar limitations. These citations point to the process of registration and identification in Feder's system. Further discussion of more specific identifications tracked by the system can be found at column 38, lines 40-56.

These citations relate to all the claims that include descriptions of different types of service or network identifications.

The “Diepstraten” citation refers to the ability to use IEEE 802.11 as per the combination. In addition, part of the IEEE 802.11 published standard has been included in the relevant prior art to show that these types of system identifications were previously defined in the standard and well known in the art.

- <Claims 93, 107, and 118>

The method of claim 3, wherein the plurality of SIDs comprises a plurality of IEEE 802.11 Basic Service Set IDs (BSSIDs) (Feder, column 15, lines 42-52; Feder, column 17, lines 3-26; and Diepstraten).

- <Claims 94, 108, and 119>

The method of claim 93, wherein the plurality of BSSIDs comprise at least one media access control (MAC) ID (Feder, column 10, lines 38-43 and Diepstraten).

- <Claims 95, 109, and 120>

The method of claim 93, wherein the plurality of BSSIDs comprise a plurality of media access control (MAC) IDs; and wherein a first MAC ID of the plurality of MAC IDs is different from a second MAC ID of the plurality of MAC IDs (Feder, column 10, lines 38-43 and Diepstraten).

- <Claims 96, 110, and 121>

The method of claim 93, wherein a first BSSID of the plurality of BSSIDs is different from a second BSSID of the plurality of BSSIDs (Feder, column 15, lines 42-52; Feder, column 17, lines 3-26; and Diepstraten).

- <Claims 97, 111, and 122>

The method of claim 3, wherein the plurality of SIDs comprises a plurality of IEEE 802.11 Extended Service Set IDs (ESSIDs) (Feder, column 15, lines 42-52; Feder, column 17, lines 3-26; and Diepstraten).

- <Claims 98 and 112>

The method of claim 6, wherein the plurality of SIDs comprises a plurality of IEEE 802.11 Service Set IDs (SSIDs) (Feder, column 15, lines 42-52; Feder, column 17, lines 3-26; and Diepstraten).

- <Claim 124>

A method for providing access to a network system, wherein the network system includes a plurality of access points coupled to a network, the method comprising: a first access point receiving identification information from a portable computing device (Feder, column 7, lines 8-50), wherein the portable computing device and the first access point communicate using wireless Ethernet (IEEE 802.11) (Diepstraten), wherein the identification information indicates a wireless service provider of a plurality of possible wireless service providers (Feder, column 7, lines 8-50), wherein the identification information includes a wireless Ethernet service set identification (SSID), wherein the first access point is operable to concurrently use a plurality of wireless Ethernet service set identifications (SSIDs), wherein the first access point is operable to use each SSID of the plurality of SSIDs to communicate with one or more portable computing devices (Feder, column 15, lines 42-52; Feder, column 17, lines 3-26; and Diepstraten); determining the wireless service provider for the portable computing device after

Art Unit: 2155

receiving the identification information; the first access point receiving data from the portable computing device; and providing the data received from the portable computing device to a destination based on the determined the wireless service provider (Feder, column 7, lines 8-50).

- <Claim 125>

The method of claim 124, wherein the plurality of SSIDs include at least two basic service set IDs (BSSIDs) (Feder, column 15, lines 42-52; Feder, column 17, lines 3-26; and Diepstraten).

- <Claim 126>

The method of claim 125, wherein the at least two BSSIDs comprises at least two media access control (MAC) IDs (Feder, column 10, lines 38-43 and Diepstraten).

- <Claim 127>

The method of claim 126, wherein the at least two MAC IDs are the same (Feder, column 10, lines 38-43 and Diepstraten).

- <Claim 128>

The method of claim 124, wherein the plurality of SSIDs include at least two extended service set IDs (ESSIDs) (Feder, column 15, lines 42-52; Feder, column 17, lines 3-26; and Diepstraten).

- <Claim 129>

The method of claim 124, further comprising: the first access point broadcasting at least two of the plurality of wireless Ethernet service set identifications (SSIDs) (Feder, column 12, lines 27-35; Feder, column 17, lines 3-26; and Diepstraten).

- <Claim 130>

The method of claim 129, wherein said broadcasting includes a beacon format (Feder, column 12, lines 27-35; Feder, column 17, lines 3-26; and Diepstraten).

- <Claim 143>

A method for wireless network access in a network system, wherein the network system includes a plurality of access points coupled to a network, the method comprising: a first access point of the plurality of access points receiving identification information from a portable computing device, wherein the identification information indicates a wireless service provider of a plurality of possible wireless service providers; determining a wireless service provider for the portable computing device after receiving the identification information; the first access point receiving data from the portable computing device; and providing the data received from the portable computing device to a destination based on the determined wireless service provider (Feder, column 7, lines 8-50); wherein the first access point and the portable computing device communicate using wireless Ethernet (IEEE 802.11) (Diepstraten).

- <Claim 144>

A method for wireless network access in a network system, wherein the network system includes a plurality of access points coupled to a network, the method comprising: a first access point of the plurality of access points receiving identification information from a portable computing device, wherein the identification information indicates a network destination of a plurality of possible network destinations; determining a network destination after receiving the identification information; the first access point receiving

Art Unit: 2155

data from the portable computing device; and providing the data received from the portable computing device to the destination (Feder, column 7, lines 8-50); wherein the first access point and the portable computing device communicate using wireless Ethernet (IEEE 802.11) (Diepstraten).

- <Claim 145>

The method of claim 144, wherein the first access point performs said determining (Feder, column 7, lines 8-50).

Since the combination of Feder and Diepstraten discloses all of the above limitations, claims 92-98, 106-112, 117-122, 124-130, and 143-145 are rejected.

22. Claim 100 is rejected under 35 U.S.C. 103(a) as being unpatentable over Feder.

23. Feder disclosed a wireless data network that provides communications with a point-to-point protocol server. In addition, Feder's access points utilize MAC layer bridging techniques throughout the processes of registration and data transfer. Although Feder's system did not explicitly state the use of the IEEE 802.1p protocol, it would have been a clear extension of the system to utilize this protocol. IEEE 802.1p was well known in the art at the time of the applicant's invention. It is used for wireless communications systems like that of Feder and supports MAC layer data bridging which is a technique explicitly used by Feder. Thus, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system provided by Feder by adding support for the IEEE 802.1p protocol.

24. Thereby, Feder discloses:

Art Unit: 2155

- <Claim 100>

The network system of claim 30, wherein the network is operable to support IEEE 802.1p (column 10, lines 22-53 and obviousness).

Since the combination of Feder and obviousness discloses all of the above limitations, claim 100 is rejected.

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

- IEEE Std 802.11-1997, IEEE, 1997, Section 5 (General Description, pgs. 9-28) discloses concepts and terminology used within the 802.11 standard including extensive discussion of service sets and address spaces and Section 7.1.3.3 (Address Fields, pgs. 38-40) discloses definitions and uses of address fields in the MAC frame format.
- Vaisanen et al. (U.S. Patent Number 6,560,443) disclosed antennae switching circuitry in a multi-transceiver mobile terminal with access point functionality that conforms to the IEEE 802.11 protocol.
- Beckwith (U.S. Patent Number 6,766,143) disclosed methods for expanded capabilities for wireless two-way packet communications with exemplary figures of a basic service set and an extended service set.

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2155

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Lesniewski whose telephone number currently is 703-308-6165 and beginning October 27 is 571-272-3987. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 703-308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2155

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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